Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An attitude control and propulsion system for a spacecraft, comprising:

a supply of oxidizer;

at least one attitude control nozzle that expels only the oxidizer;

a conduit fluidly coupling the supply of oxidizer and the attitude control nozzle, wherein the conduit provides a pathway for oxidizer to flow in a downstream direction from the supply of oxidizer toward and into the attitude control nozzle;

a pressure regulator coupled to the conduit and interposed between the supply of oxidizer and the attitude control nozzle, wherein the pressure regulator regulates the pressure of oxidizer at a location downstream of the pressure regulator and upstream of the attitude control nozzle to a set point pressure at or below a first pressure, wherein the first pressure comprises the pressure required to maintain the oxidizer in a gas state to ensure that the any oxidizer flowing through the conduit is in a gas state prior to entering the attitude control nozzle;

wherein the attitude control nozzle is positioned so that thrust produced by the attitude control nozzle adjusts the attitude of the spacecraft and the attitude control nozzle produces its thrust through the expansion of the oxidizer, without combustion of the oxidizer, as the oxidizer in the gas state is expelled from the attitude control nozzle; and

a hybrid rocket motor having a main nozzle, the hybrid rocket motor including a combustion chamber in which the oxidizer interacts with a solid fuel to generate thrust via the main nozzle.

2. (Original) The system of claim 1, wherein the oxidizer comprises Nitrous Oxide.

3. (Original) The system of claim 2, wherein the supply of oxidizer contains Nitrous Oxide simultaneously in both a gas state and a liquid state.

4. (Original) The system of claim 3, wherein oxidizer located in the conduit upstream of the pressure regulator is in a liquid state.

5. (Original) The system of claim 3, wherein oxidizer located in the conduit upstream of the pressure regulator is in both a liquid state and a gas state.

6. (Original) The system of claim 1, wherein the first pressure is the vapor pressure of the oxidizer at a given temperature.

7. (Original) The system of claim 1, wherein the supply of oxidizer comprises at least one propellant tank.

8. (Original) The system of claim 7, wherein the supply of oxidizer comprises a plurality of propellant tanks.

9. (Currently Amended) The system of claim 8, wherein the conduit includes a manifold that connects all of the ~~fuel~~ oxidizer tanks to the attitude control nozzle.

10. (Original) The system of claim 8, wherein the at least one attitude control nozzle includes a plurality of nozzles.

11. (Currently Amended) The system of claim 1, ~~further comprising a hybrid rocket motor,~~ wherein the conduit supplies oxidizer to the hybrid rocket motor.

12. (Currently Amended) A method of ~~generating thrust~~ controlling attitude and providing propulsion of ~~for~~ a spacecraft, comprising:

providing a supply of oxidizer, wherein the supply of oxidizer contains oxidizer in both a liquid state and a gas state;

flowing oxidizer from the supply of oxidizer to a hybrid rocket motor of the spacecraft, wherein the hybrid rocket motor includes a combustion chamber and a main nozzle;

flowing oxidizer from the supply of oxidizer to an attitude control nozzle of an attitude control system of the spacecraft; ~~and~~

regulating the pressure of oxidizer flowing to the attitude control system, wherein the pressure is regulated to a pressure below the vapor pressure of the oxidizer for a temperature of the oxidizer at a location upstream of the attitude control nozzle to ensure that the oxidizer is in a gas state when flowing into the attitude control nozzle of the attitude control system; and

expelling only the oxidizer, in a gas state, from the attitude control nozzle to produce thrust through the expansion of the gaseous oxidizer without combustion of the gaseous oxidizer.

13. (Original) The method of claim 12, further comprising flowing the oxidizer into an accumulator downstream of the pressure regulator.

14. (Canceled)

15. (Original) The method of claim 12, wherein the hybrid rocket motor includes a supply of solid rocket fuel, and wherein the oxidizer interacts with the solid rocket fuel to generate thrust from the hybrid rocket motor.

16. (Original) The method of claim 12, wherein the oxidizer comprises Nitrous Oxide.

17. (Original) The method of claim 12, additionally comprising generating no more than 0.5 lbf of thrust by the attitude and control system.

18.-21 (Cancelled)